CHAPTER 8.0

LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

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Comprehensive Listing of Mitigation Measures

Mitigation for Transportation and Circulation Impacts

M-TR-1 Direct impacts to SR 76 from I-15 SB ramps to I-15 NB ramps shall be mitigated by Project Applicant construction of a loop on-ramp at the intersection of SR 76/I-15 SB ramps and restriping of the bridge to four lanes at the point that 344 residential units (multi- and single-family) are occupied.

Direct impacts to other segments of SR 76 shall require the following mitigation:

 SR 76 from South Mission Road to Gird Road Under TransNet SR 76 Widening, SR 76 shall be widened to four lanes. Due to timing considerations, the Project Applicant would require a Statement of Overriding Considerations if the Proposed Project is occupied before TransNet improvements.

• SR 76 from Sage Road to Old Highway 395

Under TransNet SR 76 Widening, SR 76 shall be widened to four lanes. Due to timing considerations, the Project Applicant would require a Statement of Overriding Considerations if the Proposed Project is occupied before TransNet improvements.

• SR 76 from Horse Ranch Creek Road to Couser Canyon Road Under Caltrans, SR 76 shall be widened to four lanes. Due to timing considerations, the Project Applicant would require a Statement of Overriding Considerations if the Proposed Project is occupied before Caltrans improvements.

- M-TR-2 Direct impacts to the SR 76 /I-15 NB ramps signalized intersection shall be mitigated by Project Applicant construction of an EB to NB loop ramp and restriping of the bridge to four through lanes (two lanes in each direction). A NB right-turn lane and WB right-turn lane shall be added to the SR 76 and I-15 NB on- and off-ramps.
- M-TR-3 Direct impacts to the Old Highway 395/Reche Road unsignalized intersection shall be mitigated by Project Applicant installation of a traffic signal.

- M-TR-4 Existing Plus Cumulative Plus Project impacts to roadway segments listed below shall be mitigated through Project Applicant participation in the Transportation Impact Fee (TIF) Program:
 - Old Highway 395 from East Mission Road to West Lilac Road
 - Reche Road from Green Canyon Norte to Gird Road
 - Pankey Road from SR 76 to Shearer Crossing
 - Pala Mesa Drive from Wilt Road/Sage Road to Old Highway 395
- M-TR-5 Existing Plus Cumulative Plus Project impacts to segments of SR 76 listed below shall be mitigated through Project Applicant participation in the TIF Program:
 - Melrose Drive to Old Highway 395
 - I-15 SB ramps to I-15 NB ramps
 - Horse Ranch Creek Road to Pala Mission Road
- M-TR-6 Existing Plus Cumulative Plus Project impacts to the signalized intersections listed below shall be mitigated through Project Applicant participation in the TIF Program:
 - SR 76/Gird Road
 - SR 76/Old Highway 395
 - SR 76/I-15 SB ramp
 - SR 76/I-15 NB ramp
 - Mission Road/Old Highway 395
 - Mission Road/I-15 SB ramps
 - Mission Road/I-15 NB ramp
 - SR 76/Melrose Drive
 - SR 76/East Vista Way
 - SR 76/North River Road
 - SR 76/Olive Hill Road
 - SR 76/South Mission Road
- M-TR-7 Existing Plus Cumulative Plus Project impacts to the unsignalized intersections shall be mitigated through Project Applicant participation in the TIF Program:
 - SR 76/Via Monserate
 - SR 76/Sage Road
 - Old Highway 395/Dulin Road
 - SR 76/Pankey Road
 - SR 76/Rice Canyon Road
 - SR 76/Couser Canyon Road
 - Old Highway 395/Pala Mesa Drive
 - Old Highway 395/Stewart Canyon Road
 - Old Highway 395/Reche Road
 - Reche Road/Live Oak Park Road

- M-TR-8 Buildout (Year 2030) Plus Project impacts to roadway segments listed below shall be mitigated through Project Applicant participation in the TIF Program:
 - Pankey Road from SR 76 to Shearer Crossing (suggested mitigation: widen roadway to four-lane collector)

In response to community concerns raised at Planning Group Meetings, the Project Applicant is also proposing an alternative mitigation approach for the cumulative and buildout (Year 2030) impacts addressed in M-TR-6 through M-TR-8, above, in conjunction with TIF payments. This alterative proposal is presented as M-TR-6a to 8a, below.

M-TR-6a to 8a

Existing Plus Cumulative Plus Project and Buildout (Year 2030) Plus Project impacts to signalized and unsignalized intersections, as well as roadway segments, would be mitigated through the Project Applicant allocating the monies identified as TIF payments for the Proposed Project to design and construct specific intersection improvements, thereby providing the community with completed intersection upgrades when needed rather than waiting until all the TIF payments by others are collected and design efforts are completed. The improvements completed by the Project Applicant under this scenario would include:

•	SR 76/Old Highway 395	Project Applicant shall construct NB to WB and SB to EB left turn lanes, and complete signal modifications.
•	Old Highway/Pala Mesa Drive	Project Applicant shall install a traffic signal and construct additional NB and SB through lanes and EB to NB and WB to SB left-turn lanes.
•	Old Highway 395/ Stewart Canyon Road	Project Applicant shall install a traffic signal and add a WB to SB left-turn lane.
•	SR 76/ Pala Mesa Drive <u>Pankey Road</u>	Project Applicant shall install a traffic signal and add NB to WB and SB to EB left turn lanes revamp Pankey Road to tie into existing SR 76.

Mitigation for Noise Impacts

On-site Exterior Noise

M-N-1 Nine-foot high noise attenuation barriers shall be constructed along the property boundaries of lots 285 through 301 within PA R-4 and the HOA recreational facility (PA P-3) (Figure 3.1-108, Location of Noise Attenuation Barriers).

The designed noise screening may only be accomplished if the barrier weight is at least 3.5 pounds per square foot of face area and if barriers have no decorative cutouts or line-of-site openings between shielded areas and the roadways. All gaps (except for weep holes) should be filled with grout or caulking. Recommended noise attenuation barriers may be constructed using one of the following alternative materials:

- 1. Masonry block;
- 2. Stucco veneer over wood framing (or foam core), or one-inch-thick tongue and groove wood of sufficient weight per square foot;

- 3. Glass (¼ inch thick), or other transparent material with sufficient weight per square foot;
- 4. Earthen berm; and/or
- 5. Any combination of these construction materials.
- M-N-2 Ten-foot high noise attenuation barriers shall be constructed along the property boundaries of lots 21 through 52 within PA R-1 (Figure 3.1-10). The barriers shall be designed as stated above in M-N-1.
- M-N-3 Outdoor balconies of the residences adjacent to Horse Ranch Creek Road and the two southernmost units within PA MF-1 shall require six-foot high noise attenuation barriers (Figure 3.1-10). The barriers shall be designed as stated above in items 2 and/or 3 of M-N-1.
- M-N-3 Ten-foot high noise attenuation barriers shall be constructed along portions of MF-3-1 that front the Town Center and a portion of Longspur Road (Figure 3.1-108). The barriers shall be designed as stated above in M-N-1.
- M-N-4 Ten-foot high noise attenuation barriers shall be constructed along portions of MF-2 that front Horse Ranch Creek Road and Harvest Glen Lane (Figure 3.1-408). The barriers shall be designed as stated above in M-N-1.
- M-N-5 Ten foot high noise attenuation barriers shall be constructed along portions of MF-3 that front the Town Center and a portion of Longspur Road (Figure 3.1-10). The barriers shall be designed as stated above in M-N-1.
- M N 6 Eight foot high noise attenuation barriers shall be constructed along portions of MF 4 that front Pala Mesa Drive and Pankey Place and 10 foot high noise attenuation barriers shall be constructed along portions of MF 4 that front SR 76 (Figure 3.1-10). The barriers shall be designed as stated above in M N 1.

On-site Interior Noise

- M-N-75 A final noise study for the second floors of all single- and multi-family homes on the Project site shall be prepared prior to obtaining building permits for the Project. The report shall finalize the noise requirements based on actual building design specifications. Noise requirements will include the following:
 - A "windows closed" condition shall be provided that requires a means of mechanical ventilation for the second floors of all single- and multi-family houses.
 - The second floors of all single- and multi-family houses shall be provided with weatherstripped solid-core exterior doors.
 - Exterior wall/roof assembles shall be free of cutouts and openings.
 - Upgraded windows shall be provided for the second floors of single- and multi-family houses.

Preliminary exterior and interior noise requirements for tentative tract map approval shall be presented in the final noise report prior to obtaining building permits.

Park Areas

M-N-86 Nine-foot high noise attenuation barriers shall be constructed along the western side of the northern half of PA P-3 (Figure 3.1-108). The barriers shall be designed as stated above in M-N-1.

Sewer Lift Station

M-N-97 The generators shall be equipped with the manufacturer's sound enclosure to decrease noise levels to 70 dBA at 23 feet to comply with located in a cinder block building that utilizes acoustical louvers to decrease the noise level to the adjacent property line standards. Additionally, the proposed generator must be sited within the parcel a minimum of 35 feet from the trail staging area and 100 feet from biological open space. The louvers shall be placed on the vent openings on the southern side of the building. The sides of the building facing east, north, and west shall be completely free of any openings or ventilation. Sound level measurements shall be conducted at the nearest property line once the pump stations are fully operational to ensure compliance with the County's Noise Ordinance.

Construction Noise

M-N-10a-8a and b

A specific mitigation plan based upon the location of the construction equipment and/or blasting activities shall be identified by a County-approved acoustical engineer. If construction noise impacts are anticipated, the Project Applicant shall install a temporary noise attenuation barrier along any property line, or at an appropriate location (e.g., between newly constructed and occupied housing and later phases of construction). The mitigation plan shall determine the height and location of any necessary temporary barriers based on elevations of the construction area relative to the sensitive receptor and specific types of equipment being used. The barrier shall be constructed of solid non-gapping wood and shall comply with the County's 75 dBA standard and Noise Ordinance criteria for construction operations.

Cumulative Noise

M-N-119 Cumulative impacts associated with construction to future on-site residences would be mitigated by the implementation of Mitigation Measure M-N-10a-8a and b.

Mitigation for Geology/Paleontology Impacts

Geology

A detailed geotechnical analysis (including efforts such as additional field investigation, borings, sampling, and laboratory testing) shall be conducted prior to implementation of the Proposed Project, with this analysis to include review of Project grading plans and assessment of associated potential impacts from landslides, liquefaction, and settlement/collapse. While the final determination of measures to address these potential hazards would be based on site-specific conditions, grading plans and geotechnical analysis, they likely would include the following types of efforts (as well as conformance with applicable standards such as the IBC) to reduce potential adverse geologic impacts below a level of significance.

Landslide Hazards

Potential measures to address impacts from landslide hazards include the following:

M-GE-1 If potentially unstable landslide deposits or outcrops (e.g., debris flows) are encountered during geotechnical investigation or Project construction, they shall be remediated per direction by the Project Geotechnical Engineer (e.g., by additional grading).

Liquefaction

Potential measures to address impacts from liquefaction and related hazards include the following:

- M-GE-2a Deposits subject to potential liquefaction hazards shall be overexcavated and recompacted (or replaced with engineered fill), per direction by the Project Geotechnical Engineer.
- M-GE-2b In-place ground modifications (densification) of applicable deposits shall be conducted via methods such as "cement deep soil mixing," placement of vibra-stone columns within wick drains, compaction grouting, or dynamic compaction, per direction by the Project Geotechnical Engineer.
- M-GE-2c Subexcavation/recompaction or pre-settling procedures shall be implemented under the raised embankment areas for the proposed Pala Mesa Drive roadway to address potential settlement that otherwise might adversely impact the pavement and infrastructure located within the roadway.
- M-GE-2d Confining stresses shall be increased through design (PSE 2000), and subdrains shall be placed in appropriate locations to reduce surficial saturation, per direction by the Project Geotechnical Engineer.

Settlement/Collapse

Potential measures to address impacts from settlement/collapse of surficial materials include the following:

- M-GE-3a Implementation of densification measures as described above for potential liquefaction hazards.
- M-GE-3b Surcharging of fill (e.g., temporary loading with stockpiled fill) and allowance of appropriate time delays (i.e., to facilitate 90 percent settlement) shall be implemented in applicable areas, per direction by the Project Geotechnical Engineer.
- M-GE-3c Wick and blanket drains shall be installed in applicable locations, per direction by the Project Geotechnical Engineer.

Paleontological Resources

The following mitigation measures shall be implemented to ensure that potential adverse impacts to paleontological resources from implementation of the proposed project would be reduced below a level of significance. Evidence shall be provided to the Director of DPLU that the following notes have been placed on grading plan:

- M-P-1a A qualified paleontologist shall be at the pre-construction meeting to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. A qualified paleontologist is defined as an individual having an M.S. or Ph.D. in paleontology or a related field (e.g., sedimentary or stratagraphic geology, evolutionary biology, etc.), and who has knowledge of San Diego County paleontology and documented experience in professional paleontological procedures and techniques.
- M-P-1b The qualified paleontologist shall conduct or supervise the following mitigation tasks associated with full-time monitoring during original cutting of previously undisturbed deposits of moderate paleontological resource sensitivity (i.e., Quaternary river terrace deposits):
 - Monitoring of excavation operations to discover unearthed fossil remains, generally involving monitoring of ongoing excavation activities such as sheet grading pads, cutting slopes and roadways, basement and foundation excavations, and trenching.
 - 2. Salvage of unearthed fossil remains, typically involving simple excavation of the exposed specimens, but possibly also plaster jacketing of individual large and/or fragile specimens, or more elaborate quarry excavation of richly fossiliferous deposits.
 - 3. Recording of stratigraphic, geologic and geographic data to provide a context for the recovered fossil remains, including accurate plotting (mapping) on grading plans and standard topographic maps of all fossil localities, description of lithologies of fossil-bearing strata, measurement and description of the overall stratigraphic section (unless considered infeasible by the qualified paleontologist), and photographic documentation of the geologic setting.
 - 4. Laboratory preparation (cleaning and repair) of collected fossil remains to the point of identification (not exhibition), generally involving removal of enclosing sedimentary rock material, stabilization of fragile specimens (using glues and other hardeners), and repair of broken specimens.
 - 5. Curation of prepared fossil remains, typically involving scientific identification and cataloging of specimens, and entry of data into one or more accredited institutional (museum or university) collection (specimen/species lot and/or locality) databases.
 - 6. Transferral, for archival storage, of cataloged fossil remains and copies of relevant field notes, maps, stratigraphic sections and photographs to an accredited institution (museum or university) in California that maintains paleontological collections. Preferably, this institution will consist of one of the following: (1) San Diego Natural History Museum; (2) Los Angeles County Museum; (3) San Bernardino Museum of Natural History; (4) University of California at Berkeley Museum of Paleontology; or (5) Anza Borrego Desert State Park.
 - 7. Preparation of a final report summarizing the results of the field investigation, laboratory methods, stratigraphic information, types and importance of collected fossils, and any necessary graphics to document the stratigraphy and precise fossil collection localities.

The following conditions shall be included as notes on the Project grading plans:

M-P-1c A qualified paleontologist or paleontological monitor (under the supervision of the qualified paleontologist) shall be on site on a full-time basis during the original cutting of previously undisturbed deposits of moderate paleontological resource sensitivity (i.e., Quaternary river terrace deposits) to inspect exposures for contained fossils. A paleontological monitor is defined as an individual with at least one year of experience in field identification and collection of fossil materials. The paleontological monitor shall work under the direct supervision of the qualified paleontologist.

The Project applicant shall: (1) submit a copy of a letter signed by the qualified paleontologist or paleontological monitor which states that the applicant has retained their services and acknowledges agreement to perform and/or be responsible for concurrence with the Project mitigation measures; and (2) authorize the qualified paleontologist to direct, divert, or halt any grading activity, and to perform all other acts required by the provisions listed below. If the qualified paleontologist or paleontological monitor ascertains that the river terrace deposits are not fossil bearing, the qualified paleontologist shall have the authority to terminate the monitoring program.

- 1. Monitor all grading and excavation activities in previously undisturbed deposits of moderate paleontological resource sensitivity (i.e., Quaternary river terrace deposits).
- 2. If paleontological resources are unearthed, the qualified paleontologist or paleontological monitor shall:
 - a. Direct, divert, or halt any grading or excavation activity until such time that the sensitivity of the resource can be determined and the appropriate recovery implemented.
 - b. Salvage unearthed fossil remains, including simple excavation of exposed specimens, or, if necessary, plaster jacketing of individual large and/or fragile specimens or more elaborate quarry excavation of richly fossiliferous deposits.
 - c. Record stratigraphic and geologic data to provide a context for the recovered fossil remains, typically including a detailed description of all paleontological localities within the project site, as well as the lithology of fossil bearing strata within the measured stratigraphic section, if feasible, and photographic documentation of the geologic setting.
 - d. Prepare collected fossil remains for curation, including cleaning the fossils by removing the enclosing rock material, stabilizing fragile specimens using glues or other hardeners, if necessary, and repairing broken specimens.
 - e. Curate, catalog and identify all fossil remains to the lowest taxon possible, inventory specimens, assign catalog numbers, and enter the appropriate specimen and locality data into a collection database.
 - f. Transfer the cataloged fossil remains to an accredited institution (museum or university) in California that maintains paleontological collections for

archival storage and/or display. The transfer shall include copies of relevant field notes, maps, stratigraphic sections, and photographs.

- 3. The qualified paleontologist shall prepare a final Paleontological Resources Mitigation Report summarizing the field and laboratory methods used, the stratigraphic units inspected, the types of fossils recovered, and the significance of the curated collection.
- 4. Two hard copies of the final Paleontological Resources Mitigation Report shall be submitted to the Director of DPLU for final approval of the mitigation, and one electronic copy of the final Paleontological Resources Mitigation Report shall be submitted to the Director of DPLU according to the County DPLU's Electronic Submittal Format Guidelines.

Mitigation for Biological Resources Impacts

The mitigation outlined below for direct impacts to on- and off-site habitats includes preservation both on and off site, offon-site creation of habitat, and on-site enhancement of habitat. Appendix I of the Biological Technical Report (EIR Appendix G) contains the conceptual mitigation plans for the Project, including the Off-site on-site Wwetland mitigation Revegetation Plan-(REC 2009b2010) and the On-site Wetland Enhancement Plan (REC 2009c). A conceptual RMP (REC 2009d; Appendix G of EIR Appendix G) also was prepared for the Proposed Project, and discusses short- and long-term management of the habitat to be preserved on site.

Wetland habitats, including southern riparian forest, southern willow scrub, and freshwater marsh are proposed to be mitigated through off-site creation of wetland habitat and on-site enhancement of existing wetland habitat. The Off-site-Wetland Revegetation Plan and the On-site Wetland Enhancement Plan details the feasibility, site selection criteria, and success criteria to achieve mitigation. The site selected for off-site creation must, at a minimum:

Be within a mitigation bank or be any other land deemed acceptable to the Director of DPLU;

Be approved by the appropriate state and federal resource agencies as part of the wetland permitting process under separate permit authority;

Have the ability to create at least 10.7 acres of southern riparian forest, 1.66 acres of southern willow scrub, and 7.9 acres of freshwater marsh at the completion of all impacts (acreages may be implemented in increments based on mitigation phasing);

Mitigate for other habitat considered important regionally. If such habitat is removed, the Applicant must provide mitigation for such impacts;

Be selected based on (1) its hydrological regime, (2) its ability to be protected from future impacts, and (3) existing habitat on site, as well as adjacent habitat;

Provide for adequate hydrology to support hydrophytic plant species, either through surface water and/or groundwater;

Not be prone to scour or sedimentation;

Provide soils that enhance the establishment of wetland habitat; and

Be located within the same watershed as the San Luis Rey River to the greatest extent practicable.

Once the off-site creation area is selected it must be described in detail in a Final Revegetation Plan.

Upland habitats that would be impacted by the Project, including coast live oak woodland, Diegan coastal sage scrub, non-native grassland, and pasture, are proposed to be mitigated through on- and off-site preservation. The off-site preservation location(s) preferably would occur within the watershed of the San Luis Rey River. Site(s) shall be approved by the Director of DPLU. On-site preservation

management is addressed within the Project RMP. Off-site preservation management will be addressed once a site is selected. A separate RMP will be required for off-site mitigation.

Mitigation (i.e., preservation of open space) would occur upon issuance of the grading permit for each particular area on site. Mitigation will be implemented as impacts occur; therefore, mitigation has been divided into phases. Specific product phasing may increase or decrease based on economic factors. Mitigation has been divided into three major phases:

- **Phase 1:** Impacts/mitigation south of proposed Baltimore Oriole Road, including the off-site extension of Horse Ranch Creek Road, Pankey Place, <u>Pankey Road</u>, and Pala Mesa Drive.
- **Phase 2**: Impacts/mitigation north of proposed Baltimore Oriole Road.
- **Phase 3**: Impacts/mitigation for off-site intersection improvements as each intersection is improved.

Because mitigation will be phased, an impact and mitigation tracking system will be utilized. The Project Applicant or monitoring biologist will tally impacts as they occur and ensure that the appropriate mitigation (preservation, creation, and/or enhancement) occur concurrently. The Applicant, County, or monitoring biologist will ensure that adequate and appropriate mitigation is provided for the total impact to each habitat.

Habitats

M-BI-1a Wastewater Management Option 1: Significant direct impacts to 9.22.1 acres of southern riparian forest (including 8.21.4 acres on site and 1.00.7 acres off site) shall be mitigated at a 3:1 ratio, including 1:1 creation and 2:1 enhancement. A total of 9.22.1 acres of riparian forest shall be created off on site and. Off site mitigation for this habitat type must be of sufficient quality to support least Bell's vireo, yellow warbler, and yellow-breasted chat. Mitigation shall either occur at an approved mitigation bank, or any other land determined acceptable by the Director of DPLU. A conceptual mitigation plan for wetland creation and enhancement is included as Appendix I of EIR Appendix G. In addition, 18.44.2 acres of the on-site southern riparian forest shall be enhanced. On-site enhancement shall include cowbird trapping, and removal of exotics, and potential removal of existing berms.

Wastewater Management Option 2: Significant direct impacts to 10.5 acres of southern riparian forest (including 9.5 acres on site and 1.0 acre off site) shall be mitigated at a 3:1 ratio, including 1:1 creation and 2:1 enhancement. A total of 10.5 acres of riparian forest shall be created off site. Off site mitigation for this habitat type must be of sufficient quality to support least Bell's vireo, yellow warbler, and yellow breasted chat. Mitigation shall either occur at an approved mitigation bank, or any other land determined acceptable by the Director of DPLU. A conceptual mitigation plan for wetland creation and enhancement is included as Appendix I of EIR Appendix G. In addition, 21.0 acres of the on-site southern riparian forest shall be enhanced. On site enhancement shall include cowbird trapping, removal of exotics, and potential removal of existing berms.

M-BI-1b Significant direct impacts to <u>1.662.4</u> acres of southern willow scrub (including 1.6 acres on site and 0.06-8 acre off site) shall be mitigated at a 3:1 ratio, including 1:1 creation and 2:1 enhancement. This mitigation requires creation of shall consist of creating 1.662.4 acres of southern willow scrub habitat off on site. Mitigation shall either occur at an approved mitigation bank, or any other land determined acceptable by the Director of DPLU. A

⁴ The manufactured slope will be revegetated for buffer purposes only and will not be counted toward mitigation.

conceptual mitigation plan for wetland creation and enhancement is included as Appendix I of EIR Appendix G. An additional 3.324.8 acres of the Project site's riparian forest shall be enhanced. On-site enhancement shall include cowbird trapping, and removal of exotics, and potential removal of existing berms.

M-BI-1c Wastewater Management Option 1: Significant direct impacts to 6.60.11 acre of freshwater marsh (including 6.50.01 acres on site and 0.1 acre off site) shall be mitigated at a 3:1 ratio, including 1:1 creation and 2:1 enhancement. This mitigation requires creation of shall consist of creating 6.60.11 acres of freshwater marsh habitat off on site. Mitigation shall either occur at an approved mitigation bank, or any other land determined acceptable by the Director of DPLU. A conceptual mitigation plan for wetland creation and enhancement is included as Appendix I of EIR Appendix G. In addition, 13.20.22 acres of the Project site's riparian forest shall be enhanced. On-site enhancement shall include cowbird trapping, and removal of exotics, and potential removal of existing berms.

Wastewater Management Option 2: Significant direct impacts to 7.9 acres of freshwater marsh (including 7.8 acres on site and 0.1 acre off site) shall be mitigated at a 3:1 ratio, including 1:1 creation and 2:1 enhancement. This mitigation shall consist of creating 7.9 acres of freshwater marsh habitat off site. Mitigation shall either occur at an approved mitigation bank, or any other land determined acceptable by the Director of DPLU. A conceptual mitigation plan for wetland creation and enhancement is included as Appendix I of EIR Appendix G. In addition, 15.8 acres of the Project site's riparian forest shall be enhanced. On site enhancement shall include cowbird trapping, removal of exotics, and potential removal of existing berms.

- M-BI-1d Significant impacts to 1.3 acres of coast live oak woodland shall be mitigated at a ratio of 2:1 or 3:1. One acre of this habitat shall be mitigated at 2:1 as it is in the fuel modification zone and 0.3 acre shall be mitigated at 3:1 as it would be impacted due to grading. Therefore, a total of 2.9 acres is required to mitigate this habitat type. This mitigation shall consist of preserving 1.5 acres on site and purchasing 1.43 acres of oak woodland in an off-site mitigation bank or on other land as approved by the Director of DPLU.
- M-BI-1e Significant impacts to 46.2546.07 acres of Diegan coastal sage scrub (including 42.3 acres on site and 3.953.77 acres off site) shall be mitigated at a 2:1 ratio for a total mitigation requirement of 92.5092.1 acres. This impact shall be partially mitigated through the preservation of the remaining Diegan coastal sage scrub on site (87.3 acres). The remainder of the required mitigation shall be accomplished by purchasing 5.204.8 acres off site in a mitigation bank or other land as approved by the Director of DPLU.
- M-BI-1f Significant impacts to 47.5744.77 acres of non-native grassland habitat (including 41.238.5 acres on site and 6.376.27 acres off site) shall be mitigated at a ratio of 0.5:1 for a total mitigation requirement of 23.7922.4 acres. Mitigation shall consist of preserving the remaining non-native grassland on site (2.95.6 acres) and purchasing 20.8916.8 acres off site in a mitigation bank or other land as approved by the Director of DPLU.
- M-BI-1g Significant impacts to 141.56144.46 acres of pasture (including 133.8135.4 acres on site and 7.769.06 acres off-site) shall be mitigated at a ratio of 0.5:1 for a total mitigation requirement of 70.7872.2 acres. Mitigation shall consist of preserving the remaining pasture on site (1.6 acres) and purchasing 69.1872.2 acres off site of mitigation credit at an approved mitigation bank or on land approved by the Director of DPLU that is equal to or "like functioning" to the impacted pasture.

Jurisdictional Areas

M-BI-2 Significant impacts to Corps and CDFG jurisdictional wetlands shall be mitigated through habitat-based mitigation, as described in M-BI-1a through 1c, above. Impacts to Waters of the U.S. shall be mitigated at a 1:1 ratio (1.6 acres) through enhancement of on-site southern riparian forest. The Project Applicant shall obtain applicable regulatory permits from other agencies.

Sensitive Plants

M-BI-3 Direct significant impacts to Parry's tetracoccus shall be mitigated through the preservation of the remaining population of this species on site. ² Minor encroachment into the larger northern population (located within the outer limits of the fuel modification zone) shall be avoided during brushing and clearing. The limits of the population shall be flagged or fenced (with drift fence) to demarcate the limits of brush clearing. To mitigate for the loss of the 248 plants in the north central portion of the site, habitat supporting this plant species at a 2:1 ratio shall be purchased or created off site. This may co-occur with other mitigation/habitat needs of the Project. Off-site lands must be within an approved mitigation bank or lands deemed acceptable by the Director of DPLU.³ If, for any reason, an appropriate preserve population cannot be located, the Director of DPLU will be contacted and an alternate mitigation will be determined. Alternative mitigation may include propagation of the plant from seed.

Sensitive Wildlife

- M-BI 4 Significant direct impacts to the least Bell's vireo shall be mitigated through habitat based mitigation addressed in M-BI-1a, above. Habitat mitigation shall consist of creation of southern riparian forest at a 1:1 ratio and enhancing portions of on site southern riparian forest habitat. Creation and enhancement shall be conducted in accordance with habitat requirements of the least Bell's vireo.
- M-BI-<u>54</u> Long-term significant direct impacts to the coastal California gnatcatcher shall be mitigated through the habitat preservation and off-site habitat purchase per M-BI-1e, above.
- M-BI-65 Significant direct impacts to the yellow warbler shall be mitigated through the habitat-based mitigation addressed in M-BI-1a, above. Habitat mitigation shall consist of creation of southern riparian forest at a ratio of 1:1 and enhancing portions of on-site southern riparian forest remaining. Creation and enhancement shall be conducted in accordance with habitat requirements of the yellow warbler.
- M-BI-76 Significant direct impacts to the yellow-breasted chat shall be mitigated through the habitat-based mitigation addressed in M-BI-1a, above. Habitat mitigation shall consist of creation of southern riparian forest at a ratio of 1:1 and enhancing portions of on-site southern riparian forest remaining. Creation and enhancement shall be conducted in accordance with habitat requirements of the yellow-breasted chat.

² The Project site burned during the October 2007 wildfires. It is anticipated that the population will re-germinate to their original population size.

³ Parry's tetracoccus, though sensitive, is still relatively abundant in the County. Therefore, locating this plant for preservation is feasible.

M-BI-87 Significant direct impacts to raptor foraging areas shall be mitigated through the habitat-based mitigation addressed in M-BI-1f and M-BI-1g, above. Habitat mitigation shall consist of the preservation of non-native grassland and pasture at a 0.5:1 ratio.

Indirect Impacts

M-BI-98 No grading, clearing, or construction activity shall be initiated within 300 feet of occupied habitat during coastal California gnatcatcher and southern California rufous-crowned sparrow breeding season (February 15 through August 31), 300 feet of occupied habitat during least Bell's vireo, yellow warbler, and yellow breasted-chat breeding season (March 15 through September 15), 500 feet of occupied tree-nesting raptor habitat during raptor breeding season (January 15 through July 15), or within 800 feet of ground nesting raptor habitat during raptor breeding season (February 1 through July 15). All grading permits, grading plans, and improvement plans shall state the same. If grading, clearing, or construction would occur during gnatcatcher and/or raptor nesting seasons, a qualified biologist shall conduct a pre-construction survey to determine if these species occur within impacted areas. If there are no gnatcatchers or raptors nesting (including nest building or other breeding/nesting behavior) within this area, development shall be allowed to proceed.

If grading activities, including blasting and associated drilling, in the development area are scheduled to occur during sensitive bird breeding seasons, the Diegan coastal sage scrub in the northern section of the site the adjacent 500 feet of the open space easement areas shall be surveyed by a qualified biologist to determine if nests occupied by these species are present. Drilling is known to create noise at a level of 94 dBA at a distance of 50 feet. This corresponds to 60dBA at a distance of 2,500 feet. Where drilling is required, maximum feasible sound attenuation measures shall be incorporated. The typical level of noise reduction for a 10-foot high barrier is approximately 12 dB. This would reduce the distance of the 60-dBA contour, originally 2,500 feet from the unmitigated drilling activity, to approximately 1,000 feet from the drilling activity.

Therefore, if nests are present and if drilling is necessary, maximum feasible sound attenuation shall be accomplished. This includes no grading or clearing within 500 feet during the breeding season. No drilling would be allowed if nests are located within 1,000 feet. If nests are located between 1,000 and 2,500 feet from the drilling site, a temporary sound barrier deemed appropriate by the monitoring biologist and acoustician, will be installed that completely blocks any part of the drilling site facing sensitive avian habitat. Outside of the nesting season or during the nesting season if pre-construction surveys are negative, no restriction shall be placed on grading, including blasting/drilling activities. A report shall be submitted to the Director of DPLU describing the survey results and dates of clearing or grading activities. This design measure may be modified as necessary with written approval of the Director of DPLU.

M-BI-10-9 through 1211

- The Project shall implement the required RMP (REC 2009d2009b; Appendix G of EIR Appendix G) for the Proposed Project, including the following measures:
 - The Project Applicant shall participate in a Landscape Maintenance District as the funding mechanism for the long-term management of open space.
 - Exotic plant species shall be removed from high quality woodlands, wetlands, and grasslands on an as-needed basis to be assessed every five years.
 - Sensitive plant population boundaries shall be mapped every three years.

- Trash shall be removed from open space annually.
- All habitats and sensitive plant and animal species shall be monitored annually. Biological surveys shall be conducted every five years for sensitive plant and animal species.
- Fencing and signs within open space shall be maintained.

The conceptual RMP (within Appendix G of EIR Appendix G) is a draft document that set guidelines. A final RMP shall be prepared prior to Project grading.

- The presence of the Limited Building Zones between development and the remaining habitat shall provide a buffer to minimize edge effects, such as encroachment and the future fuel modification of open space. The limited building zones reduce potential significant impacts associated with highly invasive non-native plant invasion, domestic animal predation, and human encroachment through signage of the open space and backyard fencing, as proposed on the fencing and signage plans. The limited building zones on the Project site would be within the fuel modification zone. Specifically, between MF 1 and OS-2, the limited building zone is included within the proposed enhanced wetland buffer and the fuel modification zone.
- The landscape plan shall include specifics regarding the types of plant species allowed along the Project footprint boundary. The final landscape plans will be reviewed prior to approval to ensure that no invasive non-native plants (as identified by the California Invasive Plant Council) are used adjacent to any biological open space areas.
- The limits of grading shall be flagged or marked with silt fencing prior to grading to prevent inadvertent impacts to adjacent sensitive habitat. Prior to brushing, a qualified biologist shall review the flagging and fencing.
- A qualified biologist shall monitor the limits of grading during clearing, grubbing, and grading. Monitoring shall be conducted once per day with weekly reports submitted to the County DPLU. If inadvertent impacts occur, they shall be reported to the appropriate agency within 24 hours.
- M-BI-1312 To prevent the potential for significant road kill impacts on Pankey Place, a barrier shall be erected on the north side of the road, adjacent to OS-2 and on the south side of the road adjacent to OS-4. The barrier shall be a six-foot high black or green vinyl-coated chain-link fence. It shall be erected at the edge of graded roadway between any trails/landscaping and the open space. The fence openings shall be small enough to deter climbing and encroachment by humans.

Potential Mitigation for Impacts Associated with Cumulative Traffic Mitigation in Conjunction with TIF Payment

As stated above, the Proposed Project may include the improvements of some additional off-site intersections as part of cumulative traffic mitigation in conjunction with payment of TIF. If this occurs, the mitigation measures below also would be implemented:

M-BI-1d(1) If the intersection of Old Highway 395/Stewart Canyon Road/Canonita Drive is improved by the Project, significant impacts to 0.01 acre of coast live oak woodland shall be mitigated at a ratio of 2:1 for a total mitigation requirement of 0.02 acre. This mitigation shall consist of purchasing 0.02 acre of oak woodland in an off-site mitigation bank or on other land as approved by the Director of DPLU.

- M-BI-1e(1) If the intersections of Old Highway 395/Stewart Canyon Road/Canonita Drive, <u>and Old Highway 395/Pala Mesa Drive</u>, <u>and/or SR 76/Old Highway 395</u> are improved by the Project, significant impacts to of up to 0.45-23 acre of Diegan coastal sage scrub shall be mitigated at a 2:1 ratio for a total mitigation requirement of up to 0.90-46 acre. Mitigation shall consist of purchasing up to 0.90-46 acre off site in a mitigation bank or other land as approved by the Director of DPLU.
- M-BI-1f(1) If the intersection of Old Highway 395/Pala Mesa Drive is improved by the Project, significant direct impacts to up to 0.03 acre of non-native grassland habitat shall be mitigated at a ratio of 0.5:1 for a total mitigation requirement of up to 0.31 acre. Mitigation shall consist of purchasing up to 0.31 acre off site in a mitigation bank or other land as approved by the Director of DPLU.
- M-BI-1g(1) If the intersection of Old Highway 395/Stewart Canyon Road/Canonita Drive is improved by the Project, significant impacts to 0.14 acre of pasture shall be mitigated at a ratio of 0.5:1 for a total mitigation requirement of 0.015 acre. Mitigation shall consist of purchasing 0.015 acre off site of mitigation credit at an approved mitigation bank or on land approved by the Director of DPLU that is equal to or "like functioning" to the impacted pasture.

Mitigation for Cultural Resources Impacts

M-CR-1a, 1b, and 1d

Direct impacts to buried, previously unrecorded cultural resources would be mitigated through the implementation of a grading monitoring program for both on-site development and off-site improvements. Prior to approval of grading or improvement plans, the Project Applicant shall implement a grading monitoring and data recovery program to mitigate potential impacts to undiscovered buried archaeological resources on the Project site to the satisfaction of the Director of DPLU. This grading monitoring program shall include, but not be limited to, the following actions:

- 1. Provide evidence to the DPLU that a County-approved archaeologist (consulting archaeologist) has been contracted to implement a grading monitoring and data recovery program to the satisfaction of the Director of DPLU. A letter from the consulting Project Aarchaeologist shall be submitted to the Director of DPLU. The letter shall include the following guidelines:
 - a. The consulting archaeologist shall contract with a Luiseño Native American monitor to be involved with the grading monitoring program.
 - b. The <u>consulting County approved</u> archaeologist/historian and Luiseño Native American monitor shall attend the pre-grading meeting with the contractors to explain and coordinate the requirements of the monitoring program as outlined in the County of San Diego Report Format and Content Guidelines Cultural Resources: Archaeological and Historic Resources (December 5, 2007).
 - c. The consulting archaeologist shall monitor all areas identified for development.
 - d. An adequate number of monitors (archaeological/historical/Native American) shall be present to ensure that all earthmoving activities are observed and shall be on site during all grading activities.

- e. During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and Luiseño Native American monitor(s) shall be on site full time. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Principal Investigator in consultation with the Native American monitor. Monitoring of cutting of previously disturbed deposits will be determined by the Principal Investigator.
- f. Isolates and clearly non-significant deposits shall be minimally documented in the field, and the monitored grading can proceed.
- g. In the event that previously unidentified potentially significant cultural resources are discovered, the archaeological monitor(s), in consultation with the Luiseño Native American Monitor, shall have the authority to divert or temporarily halt ground disturbance operations in the area of discovery to allow evaluation of potentially significant cultural resources. The Principal Investigator shall contact the County Archaeologist at the time of discovery. The Principal Investigator, in consultation with the County staff archaeologist and Luiseño Native American monitor, shall determine the significance of the discovered resources. The County Archaeologist must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the County Archaeologist, then carried out using professional archaeological methods.
- h. If any human bones are discovered, the Principal Investigator shall contact the County Coroner. In the event that the remains are determined to be of Native American origin, the MLD, as identified by the NAHC, shall be contacted in order to determine proper treatment and disposition of the remains.
- Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods. The Principal Investigator shall determine the amount of material to be recovered for an adequate artifact sample for analysis.
- j. In the event that previously unidentified cultural resources are discovered, all cultural material collected during the grading monitoring program shall be processed and curated at a San Diego facility that meets federal standards per 36 CFR Part 79, and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County, to be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid.
- k. In the event that previously unidentified cultural resources are discovered, a report documenting the field and analysis results and interpreting the artifact and research data within the research context shall be completed and submitted to the satisfaction of the Director of DPLU prior to the issuance of any building permits. The report shall include the following:
 - i. Department of Parks and Recreation Primary and Archaeological Site forms;
 - ii. Evidence from a federally approved curation facility within San Diego County that all cultural material collected during the grading monitoring program has been

received for curation accompanied by payment of the fees necessary for permanent curation.

- 1. In the event that no cultural resources are discovered, a brief letter to that effect shall be sent to the Director of DPLU by the consulting archaeologist that the grading monitoring activities have been completed.
- M-CR-1c To avoid direct impacts to site CA-SDI-682/Monserate adobe from off-site improvements, a temporary fencing plan shall be implemented. Prior to the start of grading or improvements, the Project aApplicant shall implement a temporary fencing plan to mitigate potential impacts to site CA-SDI-682/Monserate adobe to the satisfaction of the Director of DPW. The temporary fencing plan shall include, but not be limited to the following actions:
 - 1. Prepare and implement a temporary fencing plan for the protection of archaeological site CA-SDI-682/Monserate adobe, the temporary fencing plan shall be implemented under the supervision of a consulting County approved archaeologist and Luiseño Native American monitor and that consists of the following:
 - a. Prepare and implement a temporary fencing plan for the protection of archaeological site CA-SDI-682/Monserate adobe during any grading activities within 100 feet of said archaeological site(s). The temporary fencing plan shall be prepared in consultation with a consulting County approved—archaeologist and Luiseño Native American monitor. The fenced area shall include a buffer sufficient to protect the archaeological site(s). The fence shall be installed under the supervision of the consulting County-approved—archaeologist and Luiseño Native American monitor prior to commencement of grading or brushing and be removed only after grading operations have been completed. The temporary fencing plan shall include the following requirements:

Provide evidence to the Director of DPW that the following notes have been placed on the Grading Plan:

In the event that construction activities are to take place within 100 feet of archaeological site CA-SDI-682/Monserate adobe, the temporary fencing plan shall be implemented under the supervision of a <u>consulting County approved</u> archaeologist that consists of the following:

- i. The <u>consulting Project</u> archaeologist <u>and Luiseño Native American monitor</u> shall mark known limits of site loci.
- ii. The <u>consulting Project</u>-archaeologist <u>and Luiseño Native American monitor</u> shall determine the appropriate portion of Horse Ranch Creek Road for which the limits of proposed road grading will be fenced to ensure that the grading avoids buried deposits.
- iii. Upon approval of the proposed extent of fencing by the County archaeologist, the <u>consulting Project</u> archaeologist <u>and Luiseño Native American monitor</u> shall supervise the fencing installation.
- iv. Submit to the DPW for approval a signed and stamped statement from a California Registered Engineer, or licensed surveyor that temporary fences have been installed in all locations of the Project site where proposed grading or clearing is within 100 feet of the archaeological site CA-SDI-682/Monserate adobe.
- v. Fencing will be removed after the conclusion of construction activities.

Environmental Design Considerations/Conditions of Approval

Design Considerations for Aesthetics and Landform Alteration

- Residential and commercial designs, while varied in design theme, will be generally uniform in
 massing, elevation, and density. Proposed project zoning specifies the following maximum height
 limits: 35 feet for single-family; 35 feet for multi-family; 40 feet for the Town Center; and 35 feet
 for office professional buildings uses.
- The entire development (residential, Town Center, parks, and office) will use common siting principles, landscaping, and construction materials as well as pedestrian orientation.
- Development will be consolidated on flatter, less environmentally sensitive areas to minimize impacts to sensitive upland habitats.
- Grading (cut and fill) will be balanced on site.
- Edges of development will be softened through the use of contour grading.
- Varied heights of trees, shrubs, and groundcover will be planted on modified slopes to result in "visual undulation."
- Landscaping will be installed within each constructed phase as it is finished.
- Project lighting will adhere to Division 9 of the County LPC.
- All landscaping will follow Project landscaping design guidelines as described in the SPA/GPA
 Report as well as applicable government regulations and standards, including those for sight line
 visibility and access.
- All landscaping and irrigation plans will be consistent with appropriate guidelines and regulations
 and prepared by a licensed landscape architect and submitted to the County for review and approval
 prior to construction.
- All non-preserved areas not covered by structures or hardscape/paving will be appropriately and professionally landscaped.
- Landscape design will define areas through the creation of a focal point at entries, screening of unsightly areas, softening of expanses of pavement and buildings, and provision of transitions and separations between Project development and the surrounding community.
- Larger specimen trees will be installed at entries and key locations throughout the development.
- Areas around buildings will incorporate a mixture of trees, shrubs, vines, and groundcover designed to complement the overall design theme of the Project.
- Where the Project "Planned Sign Program" is silent, the County of San Diego Zoning Ordinance (Section 6200, Off-Premise Sign Regulations and Section 6250, On-Premise Sign Regulations) will control.
- Where feasible, noise barriers may incorporate a berm or non-glare glass/"lexon" panel combination. See through panels also may be used where second story balconies require noise attenuation. The <u>wW</u>all height will not exceed 10 feet.
- Where sound walls are built that would be visible from Horse Ranch Creek Road, Pala Mesa Drive or SR 76, the wall will be screened by Project-planted vegetation. These walls will be subject to long-term maintenance through the HOA.

- Within the Town Center, both stone/stone product and native and/or locally occurring plant materials will be widely used in Village entries and other features as one of its unique, identifying design theme elements. The following items are required:
 - A minimum of 20 percent of the total vertical exterior building surface area will be concrete, natural or cut stone, or stone veneer. Quarried and eroded granite, sandstone, flagstone, or metamorphic stone may be used to satisfy the requirements of these guidelines. Lava rock or artificial stone products will be evaluated on a case-by-case basis.
 - The requirement in the above item may be waived provided that an equal square footage of landscape walls, terraces, or other features is provided within the landscaping. Any such elements will be designed as extension of the building walls to "tie" the structure into the landscape, repeat architectural forms, and help ensure reinforcement of this unique identifying theme.
 - O Poured-in-place concrete also is an acceptable exterior surface material. Concrete panels may be sandblasted exposed aggregate, battered, or board- or earth-formed.
- Within the office professional use, non-reflective/non-glare glass will be widely used. Large expanses of glass will be restricted to the two office professional use areas.
- Single-family detached residential lots and setbacks will encourage variety in the design, orientation, and placement of homes.
- Minimum front yard building setbacks to houses are 15 feet. Minimum front yard building setbacks to garages facing the street are 20 feet. Setbacks will be varied, where possible, to avoid a monotonous pattern.
- Where slopes in the side yards allow for varied side yard setbacks, more useful private open space in side yards will be provided to avoid a monotonous pattern of houses.
- Multiple housing plans will be provided for compatibility with different lot configurations (interior and corner lots) and variety of designs for entry and garage designs.
- Side-entry floor plans may be used on both interior and corner lots, provided that the entry is clearly
 defined and the front elevation includes front-facing windows, porches, or other pedestrian-oriented
 design features.
- Housing plans used on corner lots will provide for architectural features, such as porches or entry trellises, to wrap around the street-facing corner.
- Production wall fencing will be integrated into the design of corner lots to provide for reduced wall length and other enhancements to side yards.
- Where the rear of a lot abuts a street, the design will provide for a privacy wall and landscaping consistent with the Campus Park streetscape theme.
- Grade differentials within neighborhoods will be used to add variety and enhance the sense of open space between residences.
- Basic guidelines for single-family residential garage design include requirements to:
 - Minimize the impact of garages facing the street by techniques such as varying garage door patterns and using deep recessed doors, varying colors, splitting one large door into two single doors, and integrating door window and coach lights.
- For multi-family housing, developments fronting onto Village Pathway and Promenade streets will be
 oriented toward the street with reduced setbacks, multiple entries, and pedestrian connections to
 ground floor units.

- Multi-family buildings will be oriented to create outdoor rooms, such as courtyards, connected by landscaped walkways.
- Multi-family landscaping will be comprised of trees, shrubs, vines, and ground covers that are consistent with the overall Campus Park theme.
- Tree plantings in the front yard areas of multi-family housing will be varied to provide interest in the landscape.
- Multi-family side and rear yard areas will be landscaped to soften the architecture and provide privacy for residential units.
- All business identification signs will comply in terms of size, number of colors and materials with standards specified in the Fallbrook Community Plan Design Guidelines. One sign will be allowed per business on each building wall.
- The materials and colors of the sign also will be compatible with the style, materials, and colors of the Project architecture.
- Address number signs will be of an appropriate size and location to be clearly visible to visitors and emergency responders.
- Prohibited signs include roof-mounted signs, flashing lights or signs, and animated signs or lights that convey the illusion of motion.
- Screen planting shall be utilized to visually buffer office professional uses from the I-15 corridor.
- PAs will be unique, but share fundamental architectural characteristics consistent with the Village theme.
- Building elevations visible from public view areas (all Village streets, surrounding arterial streets, and public open spaces) will be articulated with elements such as wall offsets, balconies, and windows, appropriate to the architectural style.
- The architectural style along the same street or within an individual PA will be compatible as a result of use of similar building heights, materials, window or door style, detailing, porches, arcades, overhangs, roofing, or color.
- Varied building elements, roof pitches, and setbacks will be employed to avoid monotony.
- Distinctive building elements will be oriented toward the corners of prominent Village core and entry street intersections.
- Street-facing facades will incorporate a range of scale-defining elements that relate building masses to the scale of the pedestrian. Elements may include trellises, columns, archways, doorways, porches or patios, and upper floor balconies and windows.
- Individual residential unit entries will be oriented toward the Village streets wherever possible.
- Internal homes will be connected to the Village streets by courtyards or landscaped walkways wherever possible.
- Utilitarian areas, including parking, loading, mechanical equipment, and trash enclosures, will be screened from public views to the extent possible.
- All public/HOA planting areas will be permanently irrigated and use low water consumptive plant material wherever practical.
- Transformer and cable box locations will be carefully planned and coordinated with both the utility company and the landscape architect. Transformers and cable boxes will be located to be unobtrusive and screened from view with plantings where possible.

- Mailboxes and mailbox structures will be designed to complement the architectural style of the development for which they are intended. Grouped mailboxes will be used with a maximum of 12 boxes per cluster.
- Trash enclosures will be designed to complement the architectural style of the development for which they are intended. Recycling areas (at least 50 percent) will be compatible with the proposed trash enclosure. Trash and recycling areas, or bins or container placed therein, will be protected from adverse environmental conditions, such as rain, that might render the collected materials unmarketable. Provisions for trash and recycling will be in conformance with the County requirements.
- Large expanses of asphalt paving will be avoided, where possible, and the appearance softened by landscape screening. Exposed vehicular use areas (all parking lots greater than 6,000 square feet) will include a minimum of 10 percent of the paved areas in landscaping, dispersed throughout the parking area such that every designated parking space will be within 30 feet of the trunk of a tree.
- Illumination of walkway/trail connections will be provided through the use of low intensity fixtures for safety and comfort. The lighting pattern and intensity will become more intense at path intersections and vehicular crossings
- Within building groups, architectural and accent lighting will be indirect and subtle. Increased lighting levels will highlight pedestrian areas to clearly define the pedestrian path. Service area lighting will be contained within the service area boundaries/enclosure. Lighting will be designed to minimize glare and intrusion into neighboring land uses.

Design Considerations for Transportation/Traffic

- In order to preclude substantial traffic delays during construction of residential, Town Center, recreational, and public services/utility Project elements, the Proposed Project includes the preparation and approval of a Traffic Control Plan, including measures to reduce traffic delays and minimize public safety impacts, such as the use of flagmen, traffic cones, detours and advanced notification signage, pedestrian/equestrian detours, movement restrictions, and temporary lane closures. In addition, the construction contractor will provide a means for public liaison/contact information for public inquiries and concerns.
- Grading will be balanced on site, with no import or export. Any rock generated due to on-site blasting during construction will be used on site.
- Traffic signs denoting equestrian crossings will be located along applicable roadways to promote safety. Equestrian paths will be provided along Horse Ranch Creek Road south of Baltimore Oriole Road, Pankey PlacePala Mesa Drive, Baltimore Oriole Road, and Harvest Glen Road.
- Equestrian push buttons for crossing will be provided at signalized intersections.
- Regional trails crossing roads will be designed to cross at or near a right angle.

Design Considerations for Air Quality

• The Project is pedestrian and bicycle friendly to encourage reduction in vehicle usage and trips. The mixed-use Town Center would be within a 10-minute walk (1/2 mile) of the majority of proposed residences. Transit stops will be located along Horse Ranch Creek Road and Pala Mesa Drive. The bus route also would include a loop along Baltimore Oriole Road and Longspur Road. NCTD turnouts would be provided in the vicinity of each intersection along Horse Ranch Creek Road and off site on the north side of SR 76 between Horse Ranch Creek Road and the Project site, as well as SR 76 between future Pala Mesa Drive and I-15.

- The Project includes commercial (i.e., Town Center) and recreational uses to encourage use of local facilities and reduce trip lengths.
- One long-term bicycle parking space will be provided for each unit at multi-family uses without garages.
- Class I or II bike lanes are located within ½ mile of all Project uses and the Project bike-lanes connect to an existing off-site facility.
- Non-residential site uses provide 1 bike rack space per 20 vehicle parking spaces.
- Site design and building placement will minimize barriers to pedestrian access and interconnectivity.
- Transit improvements will include shelters, route information, benches and lighting.
- Project design includes pedestrian/bicycle safety and traffic calming measures in excess of County requirements.
- Project internal roads will converge in right angle formations (rather than skewed, or acute, angles).
- Project intersections will use pedestrian safety/traffic calming measures such as marked crosswalks, countdown signal timers, curb extensions, speed tables, raised cross walks, raised intersections, median islands, tight corner radii and roundabouts or mini-circles.
- Project streets will favor pedestrian safety/traffic calming measures such as on-street parking, planter strips with street trees, and chokers.
- The Project will provide preferential parking spaces for electric and/or compressed natural gas vehicles.
- Residential buildings will provide a space for recharge of batteries for both small (hand held) as well as large (e.g., an electric lawnmower or car) equipment (laundry rooms and garages).
- The Proposed Project will have retail, open space, office, park and residential uses within ¼ of each other.
- Project will use only electric or natural gas stoves in residences.
- Grading will entail multiple applications of water during grading between dozer/scraper passes.
- Paving, chip sealing, or chemical stabilization of internal roadways will occur after completion of grading.
- Sweepers or water trucks will remove "track-out" at any point of public street access.
- Dirt storage piles will be stabilized by chemical binders, tarps, fencing, or other erosion control and suppression measures.
- Grading will terminate if winds exceed 25 mph.
- Residential slopes will be hydroseeded if lots are not developed soon after grading.
- Construction vehicles will use low-sulfur diesel fuels.
- The Project will provide residents with separate recycling and waste receptacles to support the 50 percent state-wide solid waste diversion goal.
- The Project will require separation and recycling of construction waste.
- The Project landscaping palette will include drought-tolerant trees, emphasizing evergreens on the north and west sides of buildings and deciduous trees on the south sides of buildings. These plantings will contribute to on-site carbon storage, provide shade, and reduce heating from impervious surfaces.

- The Project will provide electrical outlets at building exterior areas.
- The Project will provide shade within five years or use light-colored materials or open grid pavement for at least 30 percent of the site's non-roofed impervious surfaces.
- The Project's compact land-use patterns will reduce habitat fragmentation and contribute to the preservation of natural habitats, including forests and woodlands.
- The Project will use reclaimed water, if available, to the extent possible.
- The Project will strive for a 50 percent reduction in residential water use through features such as low-flow appliances (including toilets, shower heads, washing machines), as well as a drought-tolerant landscape palette, <u>water-saving irrigation systems (i.e., weather-based irrigation controllers)</u>, and other water conservation measures.
- Compliance with state and local ordinances requiring water conservation, including California Plumbing Code Section 402, which requires the installation of water conserving fixtures in new construction and Section 67.101 of the County's Code of Regulatory Ordinances, which prohibits water waste.
- Buildings at the Project will achieve energy performance equivalent to at least 20 percent better than current Title 24 standards.
- The Project will install energy reducing programmable thermostats that automatically adjust temperature settings.
- The Project will install low-energy traffic signals and energy efficient (sodium) street lighting.
- The Project will install energy reducing passive heating and cooling systems (e.g., insulation and ventilation).
- The Project will install energy reducing daylighting systems (e.g., skylights, light shelves and interior transom windows).
- The Project will increase interior wall and roof insulation.
- Project buildings will be designed using double-paned windows, door sweeps and weather stripping, electric light dimming controls where feasible, and high-efficiency heating and cooling systems.
- Residents at the Project will be offered a choice of energy efficient appliances (including washer/dryers, refrigerators) and appliances installed by builders would be Energy Star (including dishwashers).
- Smart growth land use patterns will be implemented, which reduce the amount of land being developed with commensurate reductions in greenhouse gasgas and therefore reduce GHG emissions.
- The Project will provide educational materials for residents discussing strategies for reducing GHG emissions associated with the operation of their buildings.
- The Project will be conditioned to participate in contributing appropriate funds for the acquisition, design and construction of a Transit Node.

Design Considerations for Noise

- Blasting procedures will comply with Division 5 of Title 3 of the San Diego County Code of Regulatory Ordinances Relating to Blasting Operations, as amended (Ordinance 7821, September 1990).
- No more than two drills will operate simultaneously, and no more than two blasts per day will occur in any one area. No rock crushing will occur on site.
- The blasting contractor will conduct a pre-blast survey to determine if any sensitive uses need to be monitored during blasting operations.
- A minimum five foot-high community theme wall will be erected along the property line to separate the PA MF-4 site from adjacent off-site development unless it is determined on an approved site plan that such a wall is not necessary or another design is more appropriate.
- Noise barriers may consist of a wall and berm combination. The wall height in a combination barrier will not exceed 10 feet.

Design Considerations for Geology

- Prior to and/or during site development, the Project geotechnical engineer will review Project plans to
 ensure compatibility with geotechnical conclusions and review (and modify as appropriate)
 applicable field activities (e.g., grading, removal of unsuitable surficial soils, and manufactured slope
 construction) to ensure conformance with appropriate geotechnical recommendations, regulatory
 guidelines, and industry standards.
- Project design will incorporate the peak ground acceleration level identified in the Project Geotechnical Investigations (Appendix F), as well as applicable International Building Code (IBC) and County Building Code standards related to subsurface profile type, acceleration and velocity coefficients, seismic zone, and seismic source.
- Project construction will incorporate appropriate best management practices (BMPs) to control erosion and sedimentation, pursuant to applicable NPDES and County requirements and standards. Specific BMPs will be identified in the Project Storm Water Pollution Prevention Plan (SWPPP; to be prepared prior to Project construction) and may include measures such as seasonal and area grading restrictions, use of a weather-triggered action plan during the rainy season, use of erosion prevention and control efforts (e.g., fiber rolls, soil binders and silt fences), storage of BMP materials on site to provide adequate standby capacity, provision of appropriate training for construction personnel, installation of permanent landscaping after construction, implementation of appropriate solid waste management and dust control efforts, and implementation of sampling and monitoring programs per regulatory requirements. Refer to Section 3.2.3 of Subchapter 3.2, Geology/Paleontology, for more discussion.
- Project construction will incorporate measures to address expansive soils in applicable areas, including techniques such as removal and replacement of expansive materials with engineered fill, selective grading (e.g., placing a cap of non-expansive material), or other appropriate industry standard measures from sources such as the IBC.
- Project construction will incorporate measures to address potential impacts related to the generation and disposal of oversize materials, including standard industry techniques such as restricting the size and/or location (e.g., depth) of materials used in various types of fills, or use in landscaping efforts, pursuant to direction in the Project Geotechnical Investigations (Appendix F).

- Project design and construction will incorporate measures to address potential issues related to cut and fill/steep fill transitions and bedrock cuts, including the use of overexcavation and appropriate fill depths, pursuant to recommendations in the Project Geotechnical Investigations (Appendix F).
- Project design and construction will incorporate measures to address potential issues related to the stability of manufactured slopes, including:
 - Use of drained replacement (stabilization) fills for cut slopes exposing fractured or faulted bedrock, alluvium, or colluvium.
 - Replacement with drained compacted fill, or construction at lower (layback) angles, for cut slopes that are steeper and oriented in the same direction as exposed geologic contacts and fracture patterns.
 - o Construction of fill slopes at maximum ratios of 2:1 (horizontal to vertical).
 - o Installation of terrace drains at approximately 30-vertical-foot intervals on fill slopes.
 - Use of increased compaction standards (i.e., 93 to 95 percent) for fills (exceeding 50 feet) in depth.
 - Use of subsurface drainage for fill slopes.
 - o Avoidance of side hill fill slopes wherever feasible.
- Project design and construction will incorporate measures to address potential issues related to the
 design and integrity of residential foundations, including locating residential structures outside of
 areas of mapped alluvial deposits, and conformance with geotechnical recommendations related to
 footing locations/depths, proximity to slope faces, and slab-on-grade design criteria (e.g., thickness
 and use of expansion joints).

Design Considerations for Biological Resources

- A hydroseed mix that incorporates native species, is appropriate to the area, and is without invasive species, will be used for slope stabilization in all transitional zones.
- "California" pepper trees (Schinus molle) will not be permitted within the Project plant palette.
- Native vegetation will be preserved whenever feasible, and all disturbed areas will be reclaimed as soon as possible after completion of grading.
- Project trails will be aligned on existing paths, roads, and utility easements, and within otherwise
 disturbed areas to the extent feasible in order to minimize impacts to sensitive resources.
- Native oaks will be preserved in open spaces to the maximum extent possible.
- Trails will avoid fragile root areas of trees and shrubs, where feasible. Where trails cross natural terrain, width may be reduced to four feet for a short distance to protect sensitive resources.
- Lodgepole fencing will be at select locations to prevent encroachment into the open space, as discussed in the RMP.

Design Considerations for Public Services and Utilities

• The Project Applicant will pay developer fees levied by each applicable school district prior to the issuance of building permits.

- The Project design will include water conservation measures, including the state-mandated 14 BMPs for water conservation (such as installation of ultra low-flow toilets) and the use of drought tolerant/native vegetation where possible (e.g., not prohibited by fire management requirements).
- The Project will be conditioned to require the Project Applicant to contribute appropriate funds, along with the other projects located in and around the I-15/SR 76 Interchange, to fund a Sheriff's station, which may be located at the Campus Park West Project site.
- Project design will incorporate appropriate fuel management zones (100 to 200 feet wide) in designated areas (e.g., adjacent to all structures), pursuant to the San Diego County Fire Code and as detailed in the Conceptual Fire Protection Plan/Fuel Modification PlanFPP/FMP. (Appendix J.)
- Project design will meet all general vegetation management requirements of the Conceptual FPP/FMP (Appendix J).
- Fuel management zones will be appropriately maintained by the Project HOA, which will include efforts such as inspecting/repairing irrigation systems, vegetation thinning/pruning, and weed removal.
- Project landscape design will exclude all prohibited plant materials listed in the Prohibited Plant
 Materials list in the Conceptual Fire Protection Plan/Fuel Modification PlanFPP/FMP (Appendix J). The
 prohibited trees, shrubs, vines, and groundcovers shall not be planted or retained in any community
 vegetation management zone, landscaped area, as street trees, or in any median or planter.
- Project landscape shall be consistent with the planting, spacing, and maintenance guidelines in the Conceptual Fire Protection Plan/Fuel Modification PlanFPP/FMP (Appendix J).
- Project design will incorporate applicable ignition and fire resistance measures for all structures (pursuant to the San Diego County Fire and Building codes, see Appendix J), including the use of approved sprinkler systems; proper roofing and exterior wall materials; and appropriate design and construction of facilities such as eaves, vents, doors, window frames, decks, chimneys, gutters, and fences.
- Multi-family and office professional buildings exceeding 30 feet in height will have an approved stairway access to roofs for fire fighters.
- All structures exceeding 200 square feet will be equipped with sprinkler systems. For office and commercial uses, these sprinkler systems will have capacity for remote supervision.
- The design and operation of all access-related facilities such as streets, driveways, alleys, gates, speed bumps, walkways, and emergency access roads will comply with applicable requirements of the San Diego County Fire Code or other pertinent standards.
- Fire-related water supplies and access facilities within the site will conform to associated requirements identified in the Conceptual Fire Protection Plan/Fuel Modification PlanFPP/FMP, including measures such as providing emergency truck access, providing adequate fire flow within the site (2,500 gpm for two hours), and using approved fire hydrant design and spacing (per requirements in the San Diego County Fire Code).
- All residential units will be equipped with smoke detectors.
- All Project locations/facilities with uses exhibiting potential fire safety issues, such as hazardous or flammable/combustible material storage sites, and battery storage/charging areas, will comply with appropriate sections of the California Consolidated Fire Code.

Design Considerations for Hydrology and Water Quality

- Proposed Project design includes a number of site design, source control, and treatment control BMPs related to long-term water quality issues and associated regulatory requirements (including NPDES permitting and County requirements). The site owners (i.e., through an HOA) will be responsible for post-construction BMP programs and activities, as well as for monitoring and maintenance for physical BMP facilities. Refer to Subchapter 4.1.2, Chapter 8.0 and Appendix L for a detailed discussion of proposed site design source control and treatment control BMPs, as well as associated regulatory requirements.
 - Site design BMPs include measures such as preservation of open space and existing drainage patterns, use of landscaping with native/drought-tolerant varieties, use of permeable pavers as design accents, installation of flood control structures such as retention basins, minimization of irrigation/chemical applications in landscaped areas, discharge of runoff from developed areas into landscaping, control of runoff on slopes (e.g., with brow ditches), and use of energy dissipating structures at drainage outlet points.
 - O Source control BMPs include installing inlet stenciling/tiles and signs in appropriate locations to discourage illicit discharge, implementing regular programs for landscape/drainage facility maintenance and waste/green waste disposal/recycling, providing proper containment and maintenance for trash/material storage areas, minimizing/controlling irrigation runoff, directing runoff from applicable areas (e.g., private roads) into landscaping or treatment control BMPs, and providing educational materials to homeowners.
 - Treatment control BMPs consist of installing enhanced bio-filtration swales and water quality basins within the Project site boundaries to treat post-construction runoff prior to off-site discharge.
- Surface runoff and resultant erosion will be minimized through use of low water consumptive/drought tolerant plants on landscaped slopes.
- All proposed storm drain facilities (including those associated with potential off-site structures) will be designed to accommodate a 100-year storm event.
- An authorized SWPPP/Storm Water Sampling and Analysis Strategy (SWSAS) will be implemented, pursuant to requirements under the NPDES and the County Watershed Protection, Stormwater Management and Discharge Control Ordinance/Stormwater Standards Manual. Specific elements in these plans include:
 - O Construction debris storage areas will be restricted to appropriate locations at least 50 feet from storm drain inlets and watercourses.
 - Appropriate storage facilities for construction debris, including adequately sized watertight dumpsters; covers to preclude rain from contacting waste materials; impervious liners; and surface containment features such as berms, dikes, or ditches will be used to prevent runon and runoff.
 - A licensed waste disposal operator will be employed to regularly (at least once a week) remove and dispose of construction debris in an authorized off-site location.
 - Appropriate (i.e., non-hazardous) construction debris will be recycled for on- or off-site use whenever feasible.
 - O Dust-control measures such as watering will be used to reduce particulate generation for pertinent locations and activities (e.g., concrete removal).
 - Erosion prevention and sediment control measures will be used within and/or downstream of all demolition activities.

- O Conformance with applicable requirements under the NPDES General Groundwater Extraction Waste Discharge Permit, if required (i.e., if discharge of extracted groundwater exceeds permit criteria).
- Demolition BMPs such as:
 - ♦ Recycle appropriate (i.e., non-hazardous) construction debris for on- or off-site use whenever feasible.
 - Use dust-control measures, such as watering, to reduce particulate generation for pertinent locations/activities (e.g., concrete removal).
 - Use appropriate erosion prevention and sediment control measures downstream of all demolition activities.
 - ♦ Conform with applicable requirements related to the removal, handling, transport, and disposal of hazardous materials generated during demolition, including efforts such as implementing appropriate sampling and monitoring procedures; proper containment of contaminated materials during construction; providing protective gear for workers handling contaminated materials; ensuring acceptable exposure levels; and ensuring safe and appropriate handling, transport, and disposal of hazardous materials generated during Project construction.
- Project design and construction will incorporate measures to address issues related to Project site
 drainage and the potential for encountering shallow groundwater. Specifically, such measures
 include using positive drainage techniques to direct surface flows away from structures, controlling
 runoff on slopes (e.g., with brow ditches or terrace drains), minimizing/controlling landscape
 irrigation, use of subdrains in applicable areas to direct subsurface flows into drainage facilities, and
 conformance with NPDES permit requirements for groundwater removal/disposal.
- The Project will include <u>relocating and raising</u> the northernmost existing bridge over Horse Ranch Creek along the southern extension of the Pankey Road to provide adequate freeboard and avoid existing flooding during a 100-year storm.
- The Project Applicant will obtain letter from the adjacent Campus Park West property owner stating that post-Project flooding onto their property is allowed.

Design Considerations for Hazards

- Paving operations will be restricted during wet weather and sediment control devices will be used downstream of paving activities.
- Paving wastes and slurry (e.g., use of properly designed and contained concrete washout areas) will be properly contained and disposed of.
- The amount of hazardous materials used and stored on-site will be minimized, and storage/use locations will be restricted to areas at least 50 feet from storm drains and surface waters.
- Raised (e.g., on pallets), covered, and/or enclosed storage facilities will be used for all hazardous materials.
- Mobile fueling/maintenance units for construction equipment will be used whenever feasible to avoid/reduce on-site fuel/lubricant storage.
- Accurate and up-to-date written inventories and labels will be maintained for all stored hazardous materials.
- Berms, ditches and/or impervious liners (or other applicable methods) will be used in material storage and vehicle/equipment maintenance and fueling areas to provide a containment volume of 1.5 times the volume of stored/used materials and prevent discharge in the event of a spill.

- Warning signs will be placed in areas of hazardous material use or storage and along drainages and storm drains (or other appropriate locations) to avoid inadvertent hazardous material disposal.
- All construction equipment and vehicles will be properly maintained.
- Solid waste management efforts such as proper containment and disposal of construction debris (e.g., use of watertight dumpsters and daily trash collection/removal) and street sweeping/vacuuming will be implemented.
- Training will be provided to applicable employees in the proper use, handling, and disposal of hazardous materials, as well as appropriate action to take in the event of a spill.
- Absorbent and clean-up materials will be stored in appropriate on-site locations where they are readily accessible.
- Wastewater facilities will be properly located and maintained.
- Recycled or less hazardous materials will be used wherever feasible.
- Regulatory agency telephone numbers and a summary guide of clean-up procedures will be placed in a conspicuous location at or near the job site trailer.
- Hazardous material use/storage facilities and operations will be regularly (at least weekly) monitored and maintained to ensure proper working order.
- A Storm Water Sampling and Analysis strategy will be implemented pursuant to regulatory guidelines.
- Where planned fills are 10 feet or greater in depth, methane probes will be required to assess methane concentrations in site soils. If methane gas is detected at concentrations greater than 12,500 parts per million (ppm), a methane remediation system designed by an engineer experienced in methane remediation will be approved prior to issuance of building permits.
- During Project construction and demolition of existing structures on the site, asbestos and lead paint surveys will be conducted and, if present, a licensed contractor will remove and properly dispose of these materials. If fluorescent lights are present, the ballast and light tubes will be disposed of in accordance with current regulations.
- Existing septic systems within the Project Parcel will be removed during the construction phase, pursuant to permits and requirements issued by the County DEH.
- Project construction activities conform applicable requirements of the NPDES General Groundwater Extraction Waste Discharge Permit, if appropriate (i.e., if discharge of extracted groundwater exceeds permit criteria).
- Construction debris storage areas will be restricted to appropriate locations at least 50 feet from storm drain inlets and watercourses.
- Appropriate storage facilities for construction debris will be used, including adequately sized
 watertight dumpsters covers to preclude rain from contacting waste materials impervious liners and
 surface containment features such as berms, dikes, or ditches to prevent runon and runoff.
- A licensed waste disposal operator will be employed to regularly (at least once a week) remove and dispose of construction debris in an authorized off-site location.
- Appropriate (i.e., non-hazardous) construction debris will be recycled for on- or off-site use whenever feasible.
- Dust-control measures such as watering will be used to reduce particulate generation for pertinent locations and activities (e.g., concrete removal).

• Erosion prevention and sediment control measures will be used downstream of all demolition activities.

Design Considerations for Land Use and Planning

- The lighting for the Proposed Project will comply with the County LPC.
- Where the Project "Planned Sign Program" is silent, the County of San Diego Zoning Ordinance (Section 6200, Off-Premise Sign Regulations and Section 6250, On-Premise Sign Regulations) will control.
- Trails that are part of the County Regional Trail System (Community Multi-purpose Trail and Regional Trails Links) will be developed in accordance with the County's Trail Standards and will accommodate equestrians, bicyclists, and pedestrians. The Regional Trail System will be dedicated to the County of San Diego, or another public agency or public interest organization.
- The Campus Park Community feeder trail system will be designed to accommodate bicyclists and pedestrians. Equestrian use on multi-purpose trails (Horse Ranch Creek Road and Baltimore Oriole Road) also will be allowed. Where trails pass through dedicated open space, the Community feeder trail system will be dedicated to the County or another public agency or public interest organization.
- Trails will be constructed per the County of San Diego Design and Construction Guidelines. The minimum regional trail easement will be 20 feet wide. A minimum travel width of at least eight feet is required for trails. Where trails cross natural terrain, the width may be reduced to four feet wide for a short distance in areas of topographically restricted width or to protect biological habitat. Community feeder trails will have a minimum travel width of at least four feet and will be surfaced with decomposed granite.